

# PATENT COOPERATION TREATY

**PCT**

## NOTIFICATION OF THE RECORDING OF A CHANGE

(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

NEVILLE, Peter, Warwick  
BTG International Limited  
10 Fleet Place  
Limeburner Lane  
London EC4M 7SB  
ROYAUME-UNI

<b>Date of mailing (day/month/year)</b> 27 November 2000 (27.11.00)	
<b>Applicant's or agent's file reference</b> 138038	<b>IMPORTANT NOTIFICATION</b>
<b>International application No.</b> PCT/IB00/00329	<b>International filing date (day/month/year)</b> 22 March 2000 (22.03.00)

<b>1. The following indications appeared on record concerning:</b> <input checked="" type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input type="checkbox"/> the agent <input type="checkbox"/> the common representative		
<b>Name and Address</b> ROLIC AG Innere Güterstrasse 2 CH-6301 Zug Switzerland	<b>State of Nationality</b> CH	<b>State of Residence</b> CH
	<b>Telephone No.</b>	
	<b>Facsimile No.</b>	
	<b>Teleprinter No.</b>	
<b>2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:</b> <input type="checkbox"/> the person <input type="checkbox"/> the name <input checked="" type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence		
<b>Name and Address</b> ROLIC AG Chamerstrasse 50 CH-6301 Zug Switzerland	<b>State of Nationality</b> CH	<b>State of Residence</b> CH
	<b>Telephone No.</b>	
	<b>Facsimile No.</b>	
	<b>Teleprinter No.</b>	
<b>3. Further observations, if necessary:</b>		
<b>4. A copy of this notification has been sent to:</b> <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> the receiving Office  <input checked="" type="checkbox"/> the International Searching Authority  <input type="checkbox"/> the International Preliminary Examining Authority                         </div> <div> <input checked="" type="checkbox"/> the designated Offices concerned  <input type="checkbox"/> the elected Offices concerned  <input type="checkbox"/> other:                         </div> </div>		

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b>  Christine Carrié  Telephone No.: (41-22) 338.83.38
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## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
 US Department of Commerce  
 United States Patent and Trademark  
 Office, PCT  
 2011 South Clark Place Room  
 CP2/5C24  
 Arlington, VA 22202  
 ETATS-UNIS D'AMERIQUE  
 in its capacity as elected Office

<b>Date of mailing (day/month/year)</b> 04 December 2000 (04.12.00)	
<b>International application No.</b> PCT/IB00/00329	<b>Applicant's or agent's file reference</b> 131228 RO/ML
<b>International filing date (day/month/year)</b> 22 March 2000 (22.03.00)	<b>Priority date (day/month/year)</b> 24 March 1999 (24.03.99)
<b>Applicant</b> MOIA, Franco	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
 19 October 2000 (19.10.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	Authorized officer  Olivia TEFY  Telephone No.: (41-22) 338.83.38
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## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

LIEBETANZ, Michael  
Isler & Pedrazzini AG  
Postfach 6940  
CH-8023 Zurich  
SUISSE

Date of mailing (day/month/year) 04 December 2000 (04.12.00)
Applicant's or agent's file reference 131228 RO/ML
International application No. PCT/IB00/00329

<b>IMPORTANT NOTIFICATION</b>
International filing date (day/month/year) 22 March 2000 (22.03.00)

1. The following indications appeared on record concerning:									
<input type="checkbox"/> the applicant	<input type="checkbox"/> the inventor								
<input checked="" type="checkbox"/> the agent	<input type="checkbox"/> the common representative								
Name and Address NEVILLE, Peter, Warrick BTG INTERNATIONAL LIMITED Limemburner Lane London, EC4M 7SB United Kingdom	<table border="1"> <tr> <td>State of Nationality</td> <td>State of Residence</td> </tr> <tr> <td colspan="2">Telephone No.</td> </tr> <tr> <td colspan="2">Facsimile No.</td> </tr> <tr> <td colspan="2">Teleprinter No.</td> </tr> </table>	State of Nationality	State of Residence	Telephone No.		Facsimile No.		Teleprinter No.	
State of Nationality	State of Residence								
Telephone No.									
Facsimile No.									
Teleprinter No.									
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:									
<input type="checkbox"/> the person	<input checked="" type="checkbox"/> the name								
<input checked="" type="checkbox"/> the address	<input type="checkbox"/> the nationality								
<input type="checkbox"/> the residence									
Name and Address LIEBETANZ, Michael Isler & Pedrazzini AG Postfach 6940 CH-8023 Zurich Switzerland	<table border="1"> <tr> <td>State of Nationality</td> <td>State of Residence</td> </tr> <tr> <td colspan="2">Telephone No. 41 1 283 4700</td> </tr> <tr> <td colspan="2">Facsimile No. 41 1 283 4747</td> </tr> <tr> <td colspan="2">Teleprinter No.</td> </tr> </table>	State of Nationality	State of Residence	Telephone No. 41 1 283 4700		Facsimile No. 41 1 283 4747		Teleprinter No.	
State of Nationality	State of Residence								
Telephone No. 41 1 283 4700									
Facsimile No. 41 1 283 4747									
Teleprinter No.									
3. Further observations, if necessary:									
4. A copy of this notification has been sent to:									
<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned								
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned								
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Olivia TEFY Telephone No.: (41-22) 338.83.38
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09/9371444

# PATENT COOPERATION TREATY

## PCT

REC'D 26 JUN 2001

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>131228RO/MD</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) <b>FOR FURTHER ACTION</b>	
International application No. <b>PCT/IB00/00329</b>	International filing date (day/month/year) <b>22/03/2000</b>	Priority date (day/month/year) <b>24/03/1999</b>
International Patent Classification (IPC) or national classification and IPC <b>G06K19/077</b>		
Applicant <b>ROLIC AG et al.</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 6 sheets, including this cover sheet.

- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand  <b>19/10/2000</b>	Date of completion of this report  <b>21.06.2001</b>
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  <b>Hindia, E</b>  Telephone No. +49 89 2399 8492



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IB00/00329

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

### Description, pages:

1-11 as originally filed

### Claims, No.:

1-12 as received on 14/04/2001 with letter of 14/04/2001

### Drawings, sheets:

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IB00/00329

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Yes:	Claims
	No:	Claims 1-12
Inventive step (IS)	Yes:	Claims
	No:	Claims 1-12
Industrial applicability (IA)	Yes:	Claims 1-12
	No:	Claims

2. Citations and explanations  
**see separate sheet**

## VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
**see separate sheet**



**It m V**

Reasoned statement under Article 35(2) PCT with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The following documents from the International Search Report have been considered for the purposes of this report:

D1 = EP-A-0810590

D2 = EP-A-0651382

D3 = JP-A-63273214

D4 = JP-A-63271719

D5 = EP-A-0611981

D3 and D4 via the corresponding entry in WPI/DERWENT ABSTRACTS

D1 and D2 have been cited in the International Search Report. D3, D4 and D5 are cited in the light of the PCT International Preliminary Examination Guidelines, Chapter VI-7.24.; copies of D3, D4 and D5 have already been annexed to the written opinion.

2. **Novelty**

Present claim 1 does not comply with the requirements of Article 33(2) PCT for the following reasons:

Present claim 1 as worded attempts to define the subject-matter in terms of the result to be achieved rather than in structural terms. In particular, the feature "creating a normally hidden image which can be revealed by means which do not tend to rewrite the visible information" used to specify the layer overlapping the information recording layer does not specify the layer in terms of its structural features, but defines the final result achieved therewith, i.e., creating a hidden image. The real structure of the said layer, i.e., its composition or the compounds constituting the layer are not further defined in the claim. Thus, the present definition of the said layer leaves the reader in doubt which particular materials out of the plurality of the known materials in the prior art have to be used for realizing the said layer in claim 1, and therefore it does not enable to delimit the layer and in particular the claimed item from the prior art. It is therefore impossible to determine the matter for which protection is sought so that an undue burden is placed on others seeking to establish the extent of the protection conferred by the claim.

Thus, in examining novelty/ inventive step of the subject-matter of claim 1 as presently worded, the item has been interpreted as an item carrying a visible information recording layer and a further layer. The objected feature above referring to the further layer has not been taken into account, since the said feature is not suitable to delimit neither the layer nor the claimed item from the prior art.

Items carrying a visible information recording layer and a further layer are known from D1 and D2 (see the claims in D1 and D2). Items carrying visible information in a thermosensitive material recording layer and comprising a further layer are already known from D3 and D4. It is pointed out, that also the optical components for image data storage comprising a cholesteric filter and further layers disclosed in D5 (see the claims and figures 1 to 7), also deprive claim 1 of novelty for the reasons indicated above. Therefore, the subject-matter of claim 1 is not new as required by Article 33(2) PCT.

- 2.1 The subject-matter of claims 2 and 10 is also known from D1 and D2, of claims 3 to 7 is also known from D2 and of claims 8 and 9 is also known from D3 and D4 for the reasons already put forward against claim 1 above. The subject-matter of claims 11 and 12 is also known from D5.

**3. Inventive Step**

The subject-matter of claims 1 to 12 does not involve an inventive step, since the items defined in claims 1 to 12 are already known from the prior art (see section 2. above). Therefore, the claims do not comply with the requirements of Article 33(3) PCT.

4. Present claims 1 to 12 comply with the requirements of Article 33(4) PCT (industrial applicability).

**Item VII**

Certain defects in the international application

The following defects in the form or contents of the international application have been noted:



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/IB00/00329

1. There are trade marks in the description on pages 6 and 8 which are not identified as such.
2. The application does not meet the requirements of Rule 10.1(a) PCT, since the unit "microns" used in the description is not a metric unit.

**Item VIII**

Certain observations on the international application

The following observations on the clarity of the claims, description and drawings or on the question whether the claims are fully supported by the description, are made:

1. Claims 1 and 10 do not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined for the following reasons:
  - 1.1 The feature in claim 1 "... a layer.....creating a normally hidden image which can be revealed by means which do not tend to rewrite the visible information" does not specify the claimed item in terms of its structural features, but defines the final result achieved with a layer of the item. The real composition or the compounds constituting the said layer are not defined in the claim. Thus, the present definition for the layer leaves the reader in doubt which particular materials out of the plurality of the known materials in the prior art are have to be used for the said layer to produce the item in claim 1; therefore, it is impossible to determine the matter for which protection is sought so that an undue burden is placed on others seeking to establish the extent of the protection conferred by the claim.
  - 1.2 The objection raised for claim 1 above also applies for the subject-matter of claim 10, since the item in this claim is also defined in terms of a result to be achieved rather than in structural terms.
  - 1.3 The expression "normally hidden" used in claims 1, 3, 4 and 10 to specify the image is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature of the image to which it refers, thereby rendering the definition of the subject-matter of said claims unclear (Article 6 PCT).
2. The term "about" used in the description is vague and indefinite.

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>138038</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/IB 00/ 00329</b>	International filing date (day/month/year) <b>22/03/2000</b>	(Earliest) Priority Date (day/month/year) <b>24/03/1999</b>
Applicant <b>ROLIC AG et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

## 4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

## 5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

## 6. The figure of the drawings to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

6C



None of the figures.

## INTERNATIONAL SEARCH REPORT

National Application No:  
PCT/IB 00/00329A. CLASSIFICATION OF SUBJECT MATTER  
G06K19/077According to International Patent Classification (IPC) or to both national classification and IPC<sup>7</sup>

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G11B,G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0810590 A (IBM CORPORATION) 03 December 1997, page 5, line 27 - page line 14, fig. 1-5. --	1-10
A	EP 0651382 A (AKZO NOBEL N.V.) 03 May 1995, column 1, line 14 - column 5, line 53, fig. 2. --	1-9
A	US 5625446 A (BEDARD) 29 April 1997, claim 1, fig. 1-5. --	1
A	FR 2756954 A (SOLAIC SOCIETE ANONYME)	1

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

29 June 2000

Date of mailing of the international search report

25. 08. 2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

MIHATSEK

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	<p>12 June 1998, abstract, fig. 1-3. -----</p>	

**ANHANG**

Zum internationalen Recherchenbericht über die internationale Patentanmeldung Nr.

In diesem Anhang sind die Mitglieder der Patentfamilien der im obengenannten internationalen Recherchenbericht angeführten Patentdokumente angegeben. Diese Angaben dienen nur zur Unterrichtung und erfolgen ohne Gewähr.

**ANNEX**

To the International Search Report to the international Patent Application No.

PCT/IB 00/00329 SAE 273155

This annex lists the patent family members relating to the patent documents cited in the above-mentioned search report. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

**ANNEXE**

Au rapport de recherche international relatif à la demande de brevet international n°

La présente annexe indique les membres de la famille de brevets relatifs aux documents de brevets cités dans le rapport de recherche international visée ci-dessus. Les renseignements fournis sont donnés à titre indicatif et n'engagent pas la responsabilité de l' Office.

Im Recherchenbericht angeführte Patentdokumente Patent document cited in search report Document de brevet cité dans le rapport de recherche			Datum der Veröffentlichung Publication date Date de publication		Mitglied(er) der Patentfamilie Patent family member(s) Membre(s) de la famille de brevets		Datum der Veröffentlichung Publication date Date de publication	
EP	A2	810590	03-12-1997		CN	A	1167313	10-12-1997
EP	A3	810590	09-06-1999		JP	A2	10116441	06-05-1998
					US	A	5761188	02-06-1998
EP	A1	651382	03-05-1995		none			
US	A	5625446	29-04-1997		none			
FR	A1	2756954	12-06-1998		none			
FR	B1	2756954	15-01-1999					

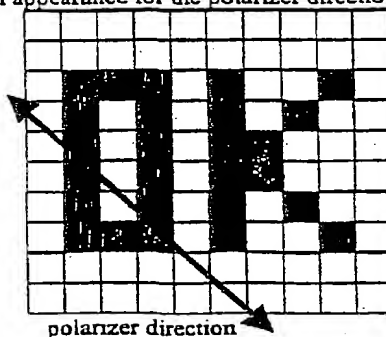


## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : G06K 19/077	A1	(11) International Publication Number: WO 00/57356 (43) International Publication Date: 28 September 2000 (28.09.00)
(21) International Application Number: PCT/IB00/00329 (22) International Filing Date: 22 March 2000 (22.03.00) (30) Priority Data: 9906817.3                      24 March 1999 (24.03.99)                      GB (71) Applicant (for all designated States except US): ROLIC AG [CH/CH]; Innere Güterstrasse 2, CH-6301 Zug (CH). (72) Inventor; and (75) Inventor/Applicant (for US only): MOIA, Franco [IT/CH]; Eggstrasse 24a, CH-4402 Frenkendorf (CH). (74) Agent: NEVILLE, Peter, Warwick; BTG International Limited, 10 Fleet Place, Limeburner Lane, London EC4M 7SB (GB).	(81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.          Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

(54) Title: ITEM CARRYING REWRITABLE VISIBLE INFORMATION

Combination of the Leuco dye (white base) and Cholesteric LPP/LCP device enables the recognition resp. the verification of the correct information of the cholesteric LPP/LCP security device (here the letters OK are shown): optical appearance for the polarizer direction  $-45^\circ$ : positive image



## (57) Abstract

Erasable and re-writable panel comprising an additional optical device which contains normally hidden images. These images can be made visible by specific techniques without changing the information of that panel. Furthermore, the panel containing the permanent visible information can be erased and re-written without alteration of the said additional optical device.

## CLAIMS

1. An item carrying rewritable visible information, characterised by a normally hidden image which can be revealed by means which do not tend to rewrite the visible  
5 information.
2. An item according to Claim 1, wherein the said means are light and a polariser.
- 10 3. An item according to Claim 1 or 2, wherein the normally hidden image is carried in at least one optically anisotropic layer having regions with different preferred directions.
- 15 4. An item according to any one of Claims 1 to 3, wherein the normally hidden image is carried in a liquid crystalline medium.
5. An item according to Claim 3, wherein the optically anisotropic layer is formed with cross-linked liquid crystalline monomers or pre-polymers.
- 20 6. An item according to Claim 4 or 5, which comprises an orientation layer for liquid crystal molecules.
7. An item according to Claim 6, wherein the orientation layer is formed of a linearly photopolymerised polymer network.  
25
8. An item according to any preceding Claim, wherein the rewritable visible information is carried in a thermosensitive recording material.
9. An item according to Claim 8, wherein the thermosensitive recording material  
30 comprises a leuco dye and developer.

10. An item according to any preceding Claim, wherein the visible information co-operates with the normally hidden image to reveal other information.
- 5 11. An item according to any preceding Claim, which comprises a cholesteric filter.
12. An item according to any one of Claims 3 to 10, wherein a cholesteric filter is arranged between the optically anisotropic layer and the rewritable visible  
10 information.